

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1312303

Luminaire Tested: P3SQAS09R409727DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1312303
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS09R409727DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 97CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

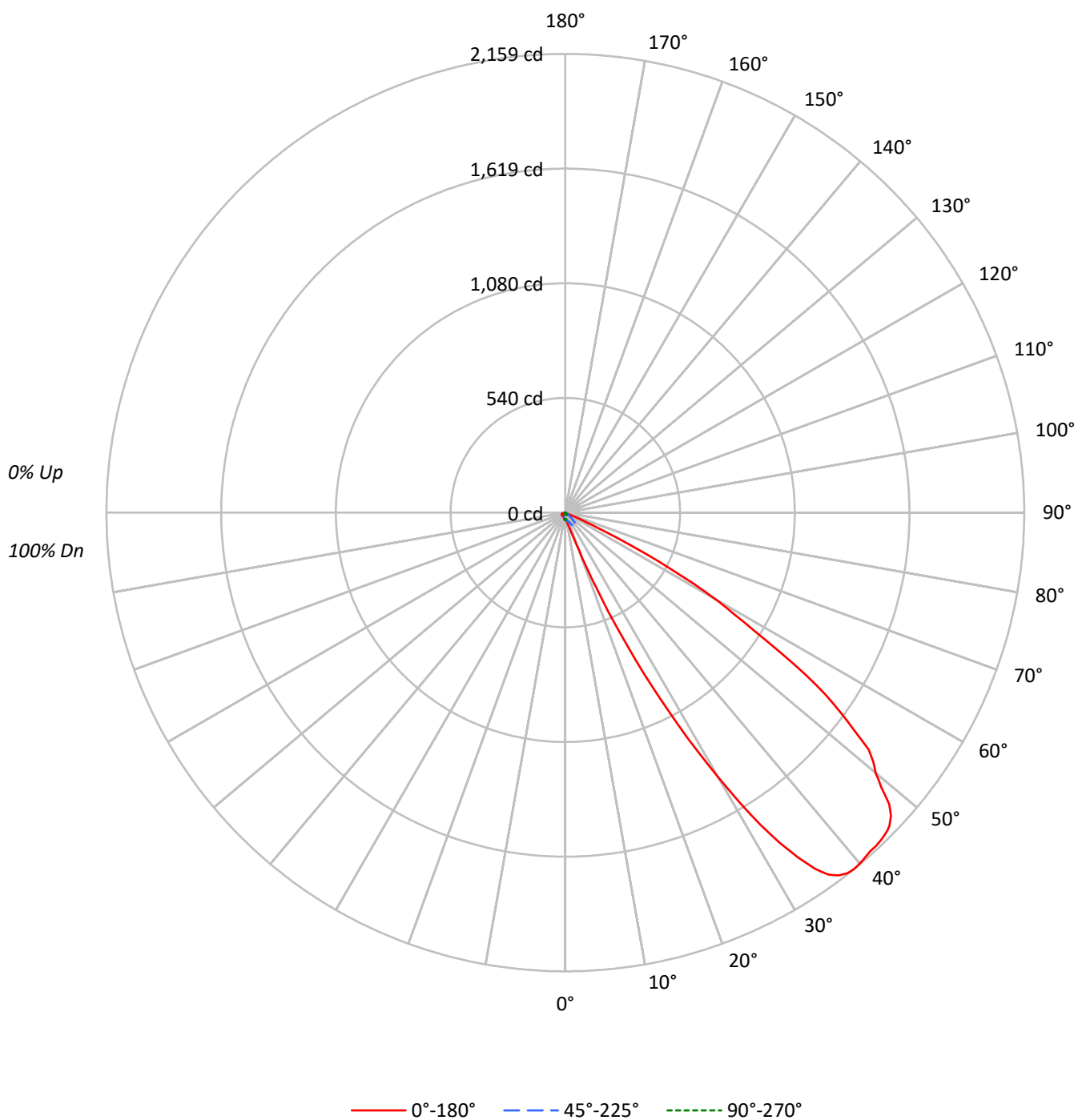
Lumens per Lamp: N/A
Luminaire Lumens: 667.0 lumens
Efficiency: N/A
Efficacy: 60.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	88	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	75	75	72
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	62	62	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	37	37	35
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	26	26	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	23	23	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	19	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5907	5907	5907	5907	5907
5°	6569	6362	5826	5290	5186
10°	7922	6750	5351	4827	4722
15°	12998	7310	4582	4261	4368
20°	34346	8651	3812	3812	4160
25°	132468	10718	3021	3496	4067
30°	285770	14259	2446	3420	4017
35°	430140	16862	2060	3343	4121
40°	484623	16929	1799	3440	4406
45°	519634	13128	1632	3580	4774
50°	510730	8199	1474	3778	5251
55°	449341	4054	1471	4234	5885
60°	284408	861	1688	4650	6544
65°	58152	245	1752	5012	7254
70°	1259	302	1863	5539	8308
75°	1198	799	2063	6122	9382
80°	1190	595	2479	6645	10910
85°	1186	1186	4940	7311	12054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 529018 cd/sqm

TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.2	0.5
10°-20°	10.6	1.6
20°-30°	51.8	7.8
30°-40°	168.5	25.3
40°-50°	232.3	34.8
50°-60°	161.8	24.3
60°-70°	30.7	4.6
70°-80°	5.5	0.8
80°-90°	2.6	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	65.6	9.8
0°-40°	234.1	35.1
0°-60°	628.2	94.2
0°-90°	667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	667.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34	34	34	34	34	
5°	38	37	34	31	30	4
15°	73	41	26	24	24	26
25°	697	56	16	18	21	359
35°	2046	80	10	16	20	1236
45°	2134	54	7	15	20	1622
55°	1496	14	5	14	20	1279
65°	143	1	4	12	18	252
75°	2	1	3	9	14	2
85°	1	1	2	4	6	0
90°	0	0	0	0	0	

TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3
2.5°	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	34.9	34.3
5°	38.0	38.0	38.0	38.0	37.4	37.4	37.4	36.8	36.8	35.5	33.7
7.5°	40.4	40.4	40.4	40.4	39.8	39.2	38.6	38.6	38.0	34.9	32.5
10°	45.3	45.3	44.7	44.1	43.5	42.3	41.7	40.4	38.6	34.3	30.6
12.5°	55.1	53.9	53.3	52.1	50.2	47.8	45.3	43.5	39.2	33.1	28.8
15°	72.9	71.7	69.2	65.5	61.9	57.0	52.7	48.4	41.0	31.2	25.7
17.5°	104.1	100.5	96.8	90.7	81.5	72.9	63.7	55.7	43.5	29.4	23.3
20°	187.4	185.0	162.9	145.8	118.2	98.6	80.2	66.8	47.2	27.6	20.8
22.5°	386.5	360.8	324.6	265.8	207.0	152.5	110.9	83.9	50.8	25.1	18.4
25°	697.1	656.7	578.9	465.5	343.6	243.2	160.5	109.6	56.4	22.7	15.9
27.5°	1055.4	1014.4	893.7	737.5	538.4	366.9	229.1	145.2	63.7	20.2	14.1
30°	1437.0	1402.1	1249.0	1032.8	758.9	513.9	306.9	181.3	71.7	17.8	12.3
31°	1590.8	1546.1	1380.7	1150.4	862.5	574.6	338.1	196.6	74.7	17.2	11.6
32°	1732.3	1681.4	1509.9	1263.1	946.4	640.1	372.4	210.1	77.2	15.9	11.0
33°	1854.2	1794.8	1629.4	1369.7	1038.9	701.4	408.0	223.0	79.0	14.7	10.4
34°	1957.7	1906.2	1728.6	1476.9	1121.0	760.2	442.9	235.8	80.2	14.1	9.8
35°	2045.9	1999.4	1823.6	1558.3	1201.2	817.1	474.7	248.1	80.2	12.9	9.8
36°	2105.3	2064.9	1905.6	1641.6	1268.6	865.5	501.7	259.1	80.2	11.6	9.2
37°	2137.8	2098.6	1959.5	1710.2	1334.7	913.3	526.2	267.7	79.6	11.0	8.6
38°	2154.3	2120.0	1999.4	1766.0	1380.7	947.6	547.6	274.4	79.0	9.8	8.6
39°	2158.6	2129.8	2024.5	1806.4	1425.4	981.9	562.9	278.1	77.2	9.2	8.0
40°	2155.6	2130.4	2037.9	1842.5	1459.7	1008.9	574.0	279.3	75.3	8.0	8.0
41°	2149.4	2129.8	2047.7	1867.7	1487.3	1026.0	578.2	276.9	72.9	6.7	7.4
42°	2143.9	2122.5	2052.0	1884.8	1506.3	1034.6	577.6	272.0	69.2	6.1	7.4
43°	2143.9	2119.4	2052.6	1895.8	1515.4	1035.2	570.3	262.8	64.3	5.5	6.7
44°	2140.2	2117.6	2055.7	1903.2	1517.9	1029.7	558.6	253.0	58.8	4.9	6.7
45°	2133.5	2109.6	2055.1	1903.8	1513.6	1016.2	539.7	240.1	53.9	3.7	6.7
46°	2120.6	2099.2	2049.6	1899.5	1500.7	996.6	517.0	227.3	48.4	3.1	6.1
47°	2094.9	2078.4	2034.9	1884.8	1481.1	967.8	490.0	212.6	44.1	2.5	6.1
48°	2050.8	2039.2	2009.8	1852.3	1443.8	932.3	461.2	196.6	39.8	2.5	6.1
49°	1970.0	1960.8	1943.6	1800.3	1396.0	888.8	430.0	178.9	35.5	1.8	6.1
50°	1906.2	1896.4	1861.5	1712.7	1327.4	833.7	395.7	161.1	30.6	1.2	5.5
51°	1864.0	1848.1	1792.9	1611.0	1227.5	760.2	358.3	143.3	25.7	1.2	5.5
52°	1810.7	1786.8	1718.2	1519.7	1136.3	686.7	317.9	125.6	22.7	1.2	5.5
53°	1699.2	1690.6	1622.6	1421.7	1045.0	616.2	276.3	110.9	19.6	1.2	5.5
54°	1601.8	1588.9	1496.5	1285.7	945.8	537.8	233.4	98.0	16.5	1.2	5.5
55°	1496.5	1471.3	1389.3	1171.2	829.4	465.5	192.3	84.5	13.5	1.2	4.9
56°	1363.5	1341.5	1253.3	1048.7	722.2	392.0	161.1	69.2	10.4	1.2	4.9
57°	1201.8	1181.6	1113.6	898.0	610.7	320.4	131.1	55.7	8.0	1.2	4.9
58°	1045.6	1023.0	945.2	753.4	493.1	254.2	109.6	45.3	6.1	1.2	4.9
59°	925.6	894.9	794.5	632.8	385.9	193.0	87.0	36.1	4.3	1.2	4.9
60°	825.7	800.6	696.5	526.8	302.6	142.1	64.3	27.6	2.5	1.2	4.9
62.5°	478.4	471.7	377.9	271.4	142.7	66.2	31.9	12.9	1.2	1.8	4.9
65°	142.7	124.3	96.8	57.6	36.8	22.1	11.6	4.3	0.6	1.8	4.3



TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	4.3	4.3	4.3	4.3	4.3	4.3	2.5	1.2	0.6	1.8	4.3
70°	2.5	1.8	1.8	1.8	1.8	1.2	1.2	0.6	0.6	1.8	3.7
72.5°	1.8	1.8	1.8	1.8	1.2	1.2	1.2	0.6	1.2	1.8	3.1
75°	1.8	1.2	1.2	1.2	1.2	0.6	0.6	0.6	1.2	1.8	3.1
77.5°	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6	1.2	1.8	3.1
80°	1.2	1.2	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8	2.5
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8	2.5
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.8	2.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	34.3	34.3	34.3	34.3
2.5°	33.1	32.5	31.9	31.9
5°	31.9	30.6	30.6	30.0
7.5°	30.0	28.8	28.8	28.8
10°	28.2	27.6	27.6	27.0
12.5°	25.7	25.7	25.7	25.7
15°	23.9	23.9	24.5	24.5
17.5°	21.4	22.1	23.3	23.9
20°	19.6	20.8	22.1	22.7
22.5°	18.4	19.6	21.4	22.1
25°	16.5	18.4	20.8	21.4
27.5°	15.3	17.8	19.6	20.8
30°	14.1	17.2	19.0	20.2
31°	14.1	16.5	19.0	20.2
32°	13.5	15.9	19.0	19.6
33°	13.5	15.9	19.0	19.6
34°	12.9	15.9	18.4	19.6
35°	12.9	15.9	18.4	19.6
36°	12.3	15.3	18.4	19.6
37°	12.3	15.3	18.4	19.6
38°	11.6	15.3	18.4	19.6
39°	11.6	15.3	18.4	19.6
40°	11.6	15.3	18.4	19.6
41°	11.0	15.3	18.4	19.6
42°	11.0	15.3	18.4	19.6
43°	11.0	14.7	18.4	19.6
44°	11.0	14.7	18.4	19.6
45°	10.4	14.7	18.4	19.6
46°	10.4	14.7	18.4	19.6
47°	10.4	14.7	18.4	19.6
48°	10.4	14.7	18.4	19.6
49°	10.4	14.7	18.4	19.6
50°	9.8	14.1	18.4	19.6
51°	9.8	14.1	18.4	19.6
52°	9.8	14.1	18.4	19.6
53°	9.8	14.1	18.4	19.6
54°	9.2	14.1	18.4	19.6
55°	9.2	14.1	18.4	19.6
56°	9.2	14.1	18.4	19.0
57°	9.2	14.1	17.8	19.0
58°	9.2	13.5	17.8	19.0
59°	9.2	13.5	17.8	19.0
60°	9.2	13.5	17.8	19.0
62.5°	8.6	13.5	17.2	18.4
65°	8.0	12.3	17.2	17.8



TEST NUMBER: P1312303

CATALOG NUMBER: P3SQAS09R409727DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	8.0	11.6	15.9	17.2
70°	7.4	11.0	15.3	16.5
72.5°	6.1	10.4	14.1	15.3
75°	5.5	9.2	12.9	14.1
77.5°	4.9	8.0	11.6	12.3
80°	4.3	6.7	9.8	11.0
82.5°	3.1	4.9	8.0	8.6
85°	2.5	3.7	5.5	6.1
87.5°	1.8	1.8	3.1	3.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)